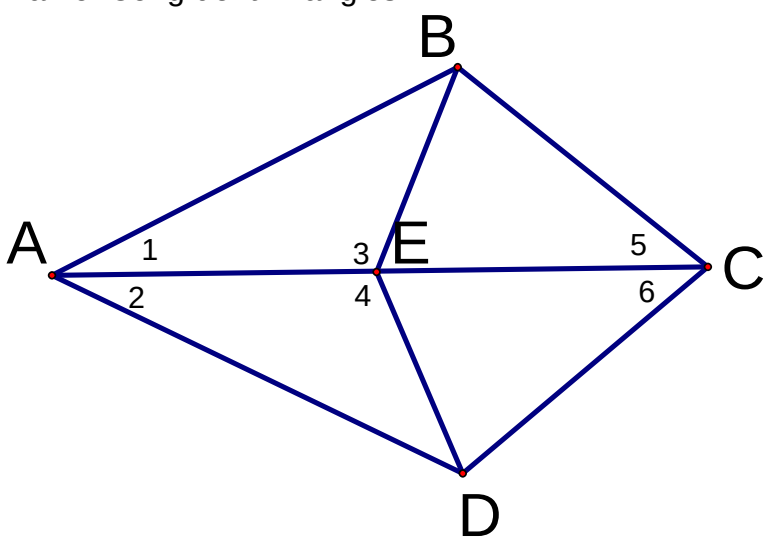
Mrs. Hayden

Name_____ Date_____

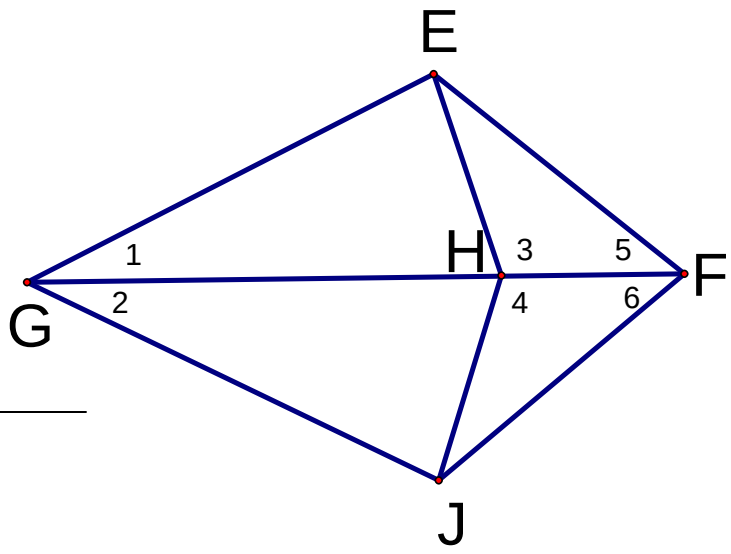
201 Using More than One Pair of Congruent Triangles

1. Given: $\angle 1 \cong \angle 2$; $\angle 5 \cong \angle 6$
   Prove: $\angle 3 \cong \angle 4$



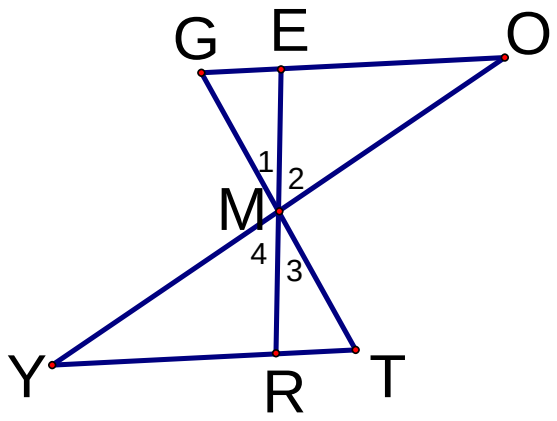
Statements	Reasons
1. ~	1.
2. $\overline{AC} \cong \overline{AC}$	2.
3. $\Delta ABC \cong \Delta ADC$	3.
4. $\overline{AB} \cong \overline{AD}$	4.
5. $\overline{AE} \cong \overline{AE}$	5.
6. $\Delta ABE \cong \Delta ADE$	6.
7. $\angle 3 \cong \angle 4$	7.

2. Given: $\overline{GE} \cong \overline{GJ}$; $\overline{EF} \cong \overline{JF}$
   Prove: $\overline{EH} \cong \overline{JH}$

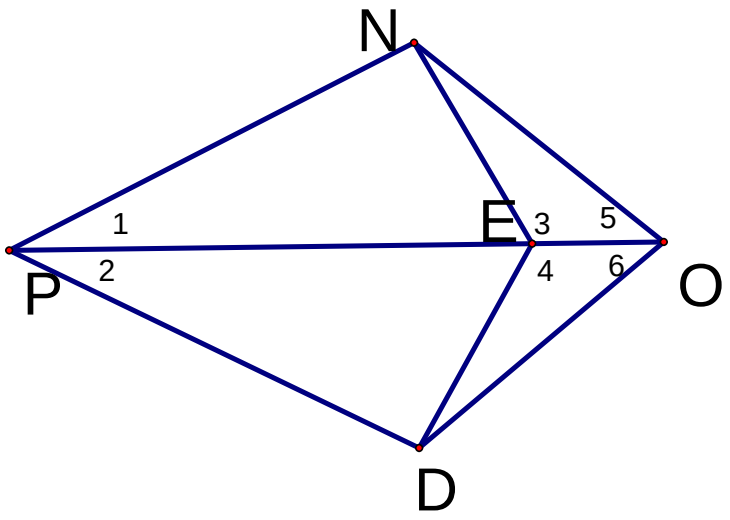


Statements	Reasons
1. ~	1.
2. $\overline{GF} \cong \overline{GF}$	2.
3. $\Delta GEF \cong \Delta GJF$	3.
4. $\angle 5 \cong \angle 6$	4.
5. $\overline{HF} \cong \overline{HF}$	5.
6. $\Delta EHF \cong \Delta JHF$	6.
7. $\overline{EH} \cong \overline{JH}$	7.

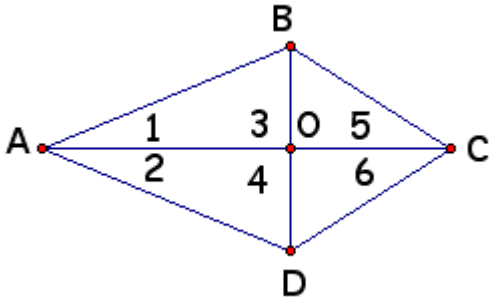
3. Given: M is the midpoint of $\overline{GT}$ and $\overline{OY}$
Prove: $\overline{EM} \cong \overline{RM}$



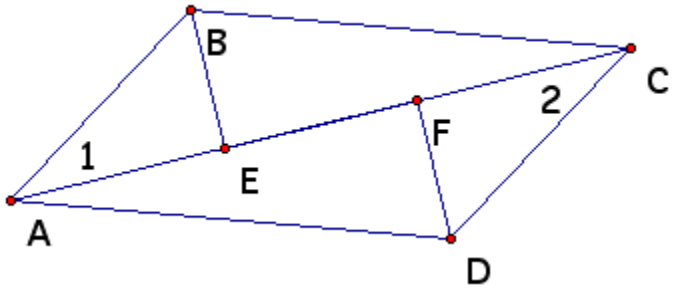
4. Given: $\angle 3 \cong \angle 4$; $\angle 5 \cong \angle 6$
Prove: $\angle PNO \cong \angle PDO$



5.
Given: $\angle 1 \cong \angle 2$; $\angle 5 \cong \angle 6$
Prove: $\overline{AC} \perp \overline{BD}$



6.
Given: $\overline{AC} \perp \overline{BE}$; $\overline{AC} \perp \overline{FD}$; $\overline{BC} \cong \overline{AD}$; $\overline{BA} \cong \overline{CD}$
Prove: $\overline{BE} \cong \overline{FD}$



7.

Given: $\overline{GJ} \cong \overline{KT}$;
A is the midpoint of $\overline{RN}$
$\overline{RJ} \perp \overline{GT}$; $\overline{KN} \perp \overline{GT}$

Prove: $\angle G \cong \angle T$